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**MAY 17 2007**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Paul DuBois, et al.  
**Serial No.:** 10/669,047  
**Confirmation No.:** 3997  
**Filing Date:** Sep. 23, 2003  
**Examiner:** Thomas H. Stevens  
**Group Art Unit:** 2121  
**Docket No:** LSTC-001  
**Customer No:** 37804

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May 9, 2007

Mail Stop:  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Request for telephonic interview**

Dear Mr. Stevens:

Enclosed please find the following forms:

- (1) PTOL413A form
- (2) Additional sheet

If you have any question regarding these forms, please contact the undersigned at (408) 255-6853 or (408) 313-8748 cell.

I will be at my client's office for the interview. We will call you at 1.571.272.3715. The phone number at my client's office is 1.925.449.2500 just in case you need contact us at the day of the interview.

Respectfully submitted,

/Roger H. Chu, Reg. # 52745/

Roger H. Chu (Reg. 52,745)

MAY 17 2007

PTOL-413A (09-08)  
Approved for use through 03/31/2007. OMB 0851-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

## Applicant Initiated Interview Request Form

Application No.: 10/669,047 First Named Applicant: Du Bois, et al.  
 Examiner: Mr. Thomas Stevens Art Unit: 2121 Status of Application: Non-Final Office Action

## Tentative Participants:

(1) Mr. Thomas Stevens (2) Roger H. Chu (Representative)  
 (3) Paul Du Bois (Inventor) (4) John Hallquist (Inventor)

Proposed Date of Interview: any day May 16-18, 2007 Proposed Time: 2pm EST (AM/PM)

## Type of Interview Requested:

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☐ YES ☒ NO

If yes, provide brief description: \_\_\_\_\_

## Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) 103 Rej.	Claim 13	Ogden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) IDS Obj.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Continuation Sheet Attached					

## Brief Description of Arguments to be Presented:

FIG. 2 and Equation 5.2 of Ogden (new reference in the current OA) teach different features from recited limitations in claim 13.

Inventors would like to explain the differences between the invention and the teachings of Ogden. (see additional sheet for more info)

The book cited in the IDS was sent to the Office. I have a postcard receipt of the book as a proof.

An interview was conducted on the above-identified application on \_\_\_\_\_.

**NOTE:** This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

/Roger H. Chu, Reg. # 52745/

Applicant/Applicant's Representative Signature

Roger H. Chu

Typed/Printed Name of Applicant or Representative

52745

Registration Number, if applicable

Examiner/SPE Signature

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

The curves published by Ogden (p. 2872, figure 2) cannot be used directly in a tabulated look-up. The published curve can be used as input in the iterative algorithm necessary to generate the curve used in the table look-up, which is the whole point of the patent.

The strain energy functional, Equation 5.2 on page 2876, is completely unrelated to the subject of the patent. This equation is for a particular rubber that requires only two constants for its characterization and the stress strain curve that is derived from that particular strain-energy density functional cannot fit an arbitrary stress-strain curve of a rubber like material.

ABAQUS and MARC fit the constants of the Ogden model---THIS IS PRECISELY WHAT THIS PATENT AVOIDS. We iteratively defined a new tabulated function from the stress strain curve like that on p. 2872, figure 2, which allows us to do a tabulated look-up of the stress values. **No publication in existence has ever published this approach and no other software uses it.** This approach is far from obvious.

The only time a curve like that shown on p. 2872 figure 2 can be used directly is for the case where Poisson's ratio is ZERO. For rubber the Poisson's ratio is ONE-HALF which couples the 3D stresses and requires the methodology developed for the patent if correct answers are to be obtained.

Solving for the principal stretches by solving a 3x3 eigenvalue problem is one way of getting the stretches. This is not unique and is not part of our patent. These stretches are needed for the tabulated look-up.

Transforming the stress to the global system is a required step and is not unique.

THE INPUT FOR MARC, ABAQUS, AND OUR SOFTWARE IS EQUIVALENT. THE DIFFERENCE IS THAT MARC AND ABAQUS FIT THE CONSTANTS OF OGDEN'S EQUATIONS AND WE AVOID THIS BY THE METHODOLOGY DEVELOPED FOR THE PATENT.